

What is claimed is:

1. [Currently amended]

A method of invoking a remote Web service on a server by an application tool residing on the client, comprising steps of: dynamically generating Web-based forms; dynamically generating Web Services client stubs; invoking the Web service with one or more threads; and transforming invocation results into name value pairs.

~~{A method of consuming Web Services on demand, comprising steps of: parsing WSDL files; automatically generating Web Services client stubs; invoking Web Services with multiple threads; and processing invocation results.}~~

2. [Currently amended]

The method according to claim 1, wherein Web-based forms are generated concurrently with said client stubs by said application tool.

~~The method according to claim 1, wherein the WSDL parsing step causes Web-based forms to be generated concurrently with the client stubs.~~

3. [Currently amended]

The method according to claim 1, wherein the Web Services invoking step further comprises the step of constructing an invocation object from a WSDL file.

~~The method according to claim 1, wherein the Web Services invoking step further comprises steps of: optimally constructing invocation objects; recursively constructing invocation inputs; setting concurrency configurations; and making SOAP calls.~~

4. [Currently amended]

The method according to claim 1, wherein the Web Services invoking step further comprises the step of constructing an invocation object from said client stubs.

~~The method according to claim 3, wherein the invocation object construction step further comprises the step of automatically constructing invocation objects from said WSDL files.~~

5. [Currently amended]

The method according to claim 1, wherein the Web Services invoking step further comprises the step of constructing an invocation object from loaded classes.

~~The method according to claim 3, wherein the invocation object construction step further comprises the step of automatically constructing invocation objects from said client stub.~~

6. [Currently amended]

The method according to claim 1, wherein the Web Services invoking step further comprises the step of recursively transforming SOAP schema types to data types of the underlying programming language.

~~The method according to claim 3, wherein the invocation object construction step further comprises the step of automatically constructing invocation objects from loaded classes.~~

7. [Currently amended]

The method according to claim 1, wherein the Web Services invoking step further comprises the step of simultaneously processing one or more invocation requests.

~~The method according to claim 3, wherein the input construction step further comprises the step of recursively mapping SOAP schema types to data types of the underlying programming language.~~

8. [Currently amended]

The method according to claim 7, wherein each invocation request causes one or more invocation threads to be generated by said application tool.

~~The method according to claim 3, wherein the concurrency configuration step further comprises the steps of: setting total number of invocation threads; setting initial number of invocation threads; setting time interval for the next thread after initial threads have been spurred; and setting number of repeated invocations per invocation thread.~~

9. [Currently amended]

The method according to claim 8, further comprising the steps of: pausing said invocation threads; stopping said invocation threads; and restarting paused invocation threads.

~~The method according to claim 3, further comprising the step of constructing invocation request messages from: said invocation objects; said invocation inputs; and said concurrency configurations.~~

10. [Currently amended]

The method according to claim 1, wherein the Web Services invoking step further comprises the step of cloning prior Web Services invocations.

~~The method according to claim 3, wherein the SOAP call step further comprises the step of simultaneously processing one or more said invocation requests.~~

11. [Currently amended]

The method according to claim 1, further comprising the step of visually transforming said name value pairs into one or more Web pages with one or more predefined templates.

~~The method according to claim 10, wherein each invocation request causes one or more invocation threads to be spurred.~~

12. [Currently amended]

A system for invoking a remote Web service on a server by an application tool residing on the client, comprising means for: dynamically generating Web-based forms; dynamically generating Web Services client stubs; invoking the Web service with one or more threads; and transforming invocation results into name value pairs.

~~The method according to claim 1, wherein the Web Services invoking step further comprises the steps of: pausing said invocation threads; stopping said invocation threads; and restarting paused invocation threads.~~

13. [Currently amended]

The system according to claim 12, wherein Web-based forms are generated concurrently with said client stubs by said application tool.

~~The method according to claim 1, wherein the Web Services invoking step further comprises the step of cloning prior Web Services invocations.~~

14. [Currently amended]

The system according to claim 12, wherein means for invoking said Web service further comprise means for constructing an invocation object from a WSDL file.

~~invocation threads; measuring memory usage of the invocation threads; saving an invocation request as the baseline, and comparing performance and load of other invocation requests to the baseline; saving at least two invocation requests as benchmarks, and comparing~~

~~performance and load among the benchmarks.~~

15. [Currently amended]

The system according to claim 12, wherein means for invoking said Web service further comprise means for constructing an invocation object from said client stubs.

~~The method according to claim 1, further comprising the step of charging end users with a pay-as-you-go finance schedule.~~

16. [Currently amended]

The system according to claim 12, wherein means for invoking said Web service further comprise means for constructing an invocation object from loaded classes.

~~The method according to claim 1, further comprising the step of charging end users with a prepaid finance schedule.~~

17. [Currently amended]

The system according to claim 12, wherein means for invoking said Web service further comprise means for recursively transforming SOAP schema types to data types of the underlying programming language.

~~The method according to claim 1, wherein the result processing step further comprises the step of presenting the invocation result with a set of predefined templates.~~

18. [Currently amended]

The system according to claim 12, wherein means for invoking said Web service further comprise means for simultaneously processing one or more invocation requests.

~~The method according to claim 1, wherein the result processing step further comprises the step of processing attachments which are received along with the invocation results.~~

19. [Currently amended]

The system according to claim 18, wherein each invocation request causes one or more invocation threads to be generated by said application tool.

~~A system for consuming Web Services on demand, comprising means for: parsing WSDL files; automatically generating Web Services client stubs; invoking Web Services with multiple~~

threads; and processing invocation results.

20. [Currently amended]

The system according to claim 19, further comprising means for: pausing said invocation threads; stopping said invocation threads; and restarting paused invocation threads.

~~The system according to claim 19, further comprising means for processing instantaneous and spontaneous invocation requests.~~

21. [Currently amended]

The system according to claim 12, wherein means for invoking said Web service further comprise means for cloning prior Web Services invocations.

~~The system according to claim 19, further comprising means for dynamically configuring and reconfiguring the invocation requests.~~

22. [Currently amended]

The system according to claim 12, further comprising means for visually transforming said name value pairs into one or more Web pages with one or more predefined templates.

~~The system according to claim 19, wherein the means for invoking Web Services further comprises means for charging end users with a pay-as-you-go finance schedule.~~

23. [Currently amended]

A computer program product for invoking a remote Web service on a server by an application tool residing on the client, the computer program product embodied on one or more computer-readable media and comprising computer-readable program code means for: dynamically generating Web-based forms; dynamically generating Web Services client stubs; invoking the Web service with one or more threads; and transforming invocation results into name value pairs.

~~The system according to claim 19, wherein the means for invoking Web Services further comprises means for charging end users with a prepaid finance schedule.~~

24. [Currently amended]

The computer program product according to claim 23, wherein Web-based forms are generated concurrently with said client stubs by said application tool.

~~The system according to claim 19, further comprising means for instantly making Web Services accessible via the Web.~~

25. [Currently amended]

The computer program product according to claim 23, wherein means for invoking said Web service further comprise computer-readable program code means for constructing an invocation object from a WSDL file.

~~The system according to claim 19, further comprising means for: performance testing Web Services; load testing Web Services; and benchmark testing Web Services.~~

26. [Currently amended]

The computer program product according to claim 23, wherein means for invoking said Web service further comprise computer-readable program code means for constructing an invocation object from said client stubs.

~~A computer program product for consuming Web Services on demand, the computer program product embodied on one or more computer-readable media and comprising computer-readable program code means for: parsing WSDL files; automatically generating Web Services client stubs; invoking Web Services with multiple threads; and processing invocation results.~~

27. [Currently amended]

The computer program product according to claim 23, wherein means for invoking said Web service further comprise computer-readable program code means for constructing an invocation object from loaded classes.

~~The computer program product according to claim 26, wherein the means for parsing WSDL files causes HTML forms to be generated concurrently with Java client stubs.~~

28. [Currently amended]

The computer program product according to claim 23, wherein means for invoking said Web service further comprise computer-readable program code means for recursively transforming SOAP schema types to data types of the underlying programming language.

~~The computer program product according to claim 26, wherein the means for invoking Web Services further comprises computer-readable program code means for: optimally constructing~~

~~invocation objects; recursively constructing invocation inputs; setting concurrency configurations; and making SOAP calls.~~

29. [Currently amended]

The computer program product according to claim 23, wherein means for invoking said Web service further comprise computer-readable program code means for simultaneously processing one or more invocation requests.

~~The computer program product according to claim 28, wherein the means for constructing invocation objects further comprises computer-readable program code means for automatically constructing invocation objects from said WSDL files.~~

30. [Currently amended]

The computer program product according to claim 29, wherein each invocation request causes one or more invocation threads to be generated by said application tool.

~~The computer program product according to claim 28, wherein the means for constructing invocation objects further comprises computer-readable program code means for automatically constructing invocation objects from said client stubs.~~

31. [Currently amended]

The computer program product according to claim 30, further comprising computer-readable program code means for: pausing said invocation threads; stopping said invocation threads; and restarting paused invocation threads.

~~The computer program product according to claim 28, wherein the means for constructing invocation objects further comprises computer-readable program code means for automatically constructing invocation objects from loaded classes.~~

32. [Currently amended]

The computer program product according to claim 23, wherein means for invoking said Web service further comprise computer-readable program code means for cloning prior Web Services invocations.

~~The computer program product according to claim 28, wherein the means for constructing inputs further comprises computer-readable program code means for recursively mapping SOAP~~

~~schema types to Java types.~~

33. [Currently amended]

The computer program product according to claim 23, further comprising computer-readable program code means for visually transforming said name value pairs into one or more Web pages with one or more predefined templates.

~~The computer program product according to claim 28, wherein the means for concurrency configurations further comprises computer-readable program code means for: setting total number of invocation threads; setting initial number of invocation threads; setting time interval for the next thread after initial threads have been spurred; and setting number of repeated invocations per invocation thread.~~

34. [Cancelled]

35. [Cancelled]

36. [Cancelled]

37. [Cancelled]

38. [Cancelled]

39. [Cancelled]

40. [Cancelled]

41. [Cancelled]

42. [Cancelled]

43. [Cancelled]

44. [Cancelled]

45. [Cancelled]

46. [Cancelled]

47. [Cancelled]

48. [Cancelled]